

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	ET Docket No. 02-135
)	
Spectrum Policy Task Force)	
Seeks Public Comment on Issues)	
Related to Commission's)	
Spectrum Policies)	

**COMMENTS OF THE SATELLITE BROADCASTING AND
COMMUNICATIONS ASSOCIATION**

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The Satellite Broadcasting and Communications Association (“SBCA”)¹ submits these comments in response to the Spectrum Policy Task Force’s (“SPTF”) Public Notice released on June 6, 2002, in the above-referenced proceeding.² SBCA, as well as several of its member companies, have filed comments in on-going Federal Communication Commission (“FCC” or “Commission”) proceedings concerning spectrum management.³ These previous filings, incorporated herein by reference, emphasize the importance of protecting customers of

¹ The Satellite Broadcasting and Communications Association of America (SBCA) is the national trade organization representing all segments of the satellite industry. It is committed to expanding the utilization of satellite technology for the broadcast delivery of video, data, music, voice, interactive and broadband services. The SBCA is composed of DBS, C-band, broadband, satellite radio, and other satellite service providers, content providers, equipment manufacturers, distributors, retailers, encryption vendors, and national and regional distribution companies, that make up the consumer satellite services industry.

² *Spectrum Policy Task Force Seeks Public Comment on Issues Related to Commissioner’s Spectrum Policies*, Public Notice, ET Docket No. 02-135, DA 02-1311 (June 6, 2002) (“SPTF Notice”).

³ See, e.g., Comments of SBCA, DIRECTV, Inc., and EchoStar Communications Corp., ET Docket 98-206, *Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range*, filed March 12, 2001 and May 15, 2001; Reply Comments of SBCA, DIRECTV, Inc., and EchoStar Communications Corp., ET Docket 98-206, filed May 9, 2001 and May 23, 2001.

incumbent services from harmful interference from new users of the spectrum band. Consumers of satellite-delivered services receive a high-quality digital signal, and are the most satisfied multichannel viewers in terms of value, quality and customer service. This has enabled Direct Broadcast Satellite (“DBS”) to become the most viable competitor to cable. The Commission’s spectrum policy must protect this competition and the subscribers who have already made the choice to receive multichannel video programming via satellite, as well as consumers who will select DBS as their multichannel video provider in the future, from harmful interference. In this filing, the SBCA comments will focus on responding to specific questions asked in the SPTF Notice, and the Commission’s departure from its past spectrum management practice that held that spectrum sharing between the DBS service and point-to-multipoint terrestrial services is not feasible.

DISCUSSION

Radio frequency spectrum is a finite resource. As innovation continues and new technologies emerge, the demands on that spectrum increase accordingly. Spectrum management is one of the most important and one of the most difficult tasks of the Commission. The Commission must balance the benefits of authorizing new services to operate (such as increased competition and further innovation), in many cases in spectrum bands that are already in use by another service, against the potential of harmful interference to those incumbents, who actively provide services to the government, businesses, or directly to consumers.

On June 6, 2002, Chairman Michael K. Powell announced the formation of a Spectrum Policy Task Force to evaluate existing Commission spectrum policies and to make

recommendations for possible improvements.⁴ On the same day, the SPTF issued a Public Notice asking for comment on a series of questions relating to spectrum policy.⁵ Among the questions asked were whether new definitions of “interference” and “harmful interference” are needed; whether incumbent users need more explicit protections from harmful interference; and whether the Commission should consider developing receiver standards for each service that would be used in judging harmful interference.

I. THE COMMISSION SHOULD CONSIDER A FLEXIBLE DEFINITION OF “HARMFUL” INTERFERENCE

It is in the public interest for the Commission’s spectrum management policies to protect satellite-delivered services from harmful interference. Satellite service operators provide consumers the highest quality services nationwide, and the Commission must formulate and enforce spectrum management policies that ensure that satellite-delivered services continue to provide competition and benefits to the public.

SBCA urges the SPTF to define “harmful” interference depending on the specific technical characteristics of a particular spectrum band and its users. Satellite operations are unique among services the Commission regulates in the degree of interference their users are able to tolerate and the harmful effects users experience due to interference.

Satellite-delivered signals have traveled thousands of miles from a high-powered satellite to a receiver that is miniscule by comparison. For example, Direct Broadcast Satellite (“DBS”) dishes are approximately 18 inches in diameter. While the DBS providers have built and are operating highly-advanced technical systems, the enormous distance between the origin of the

⁴ “FCC Chairman Michael K. Powell Announces Formation of Spectrum Policy Task Force,” *News Release* (June 6, 2002).

signal and the customer's antenna results in a very fragile signal at the point where the consumer receives it.

Despite differences between satellite's space-based platform and terrestrial service providers, consumers of satellite services are accustomed to the same or higher quality of service that would exist if the signal were transmitted only a short distance or over a wired network. Current and future DBS consumers must be protected from harmful interference from other spectrum users, particularly from another ubiquitous service sharing spectrum with satellite providers. Thus, any definition of "harmful interference" must be flexible enough to apply differently to different services to account for consumer service expectations.

With the highest digital quality video and audio offerings, DBS subscribers are consistently the most satisfied multichannel viewers in terms of value, quality and customer service.⁶ Subscribers that have already made the choice to receive multichannel video programming via DBS, as well as consumers who will select DBS as their multichannel video provider in the future, must not experience a decrease in the quality of their service as a result of interference from the ubiquitous sharing of the DBS spectrum band.

II. THE COMMISSION MUST PROTECT INCUMBENT USERS FROM HARMFUL INTERFERENCE WHEN AUTHORIZING SPECTRUM SHARING BETWEEN UBIQUITOUS SERVICES

When the Commission considers allocating spectrum that is used by a primary service to a new licensee, it must not do so unless it can ensure that the incumbent operations and the consumers of those services will be protected from harmful interference caused by the new

⁵ See SPTF Notice.

service. A new service must not be allowed to share a spectrum band with the existing providers using that spectrum unless the Commission is able to ensure that the band's current inhabitants do not suffer an interruption or diminution in the service that they provide.

Recently, the Commission reallocated the 12.2-12.7 GHz spectrum band, which was set aside for DBS operations, for use by a terrestrial point-to-multipoint cable service, called Multichannel Video Distribution and Data Service ("MVDDS").⁷ The MVDDS Order sets rules for MVDDS to operate on a "non-harmful interference basis with incumbent Broadcast Satellite Service ("BSS") providers."⁸ However, the Order indicates that the service rules for MVDDS allow for power limits that will subject DBS consumers to *more than a 30 percent increase in the unavailability of their service*.⁹ This can hardly be considered "non-harmful" to the DBS consumers who will suffer as a result.

The FCC's decision ignores the results of an independent test—conducted by the MITRE Corporation for the FCC—and will allow interference to millions of satisfied DBS subscribers. The very first finding of the MITRE report is that **"MVDDS sharing of the 12.2-12.7 GHz band currently reserved for DBS poses a significant interference threat to DBS operation in many realistic operational situations."**¹⁰ SBCA and the DBS providers have previously addressed the findings of the MITRE Report with the Commission, which highlight that harmful

⁶ See SBCA News Release, "New Study Confirms: DBS Beats Digital Cable On Value, Quality And Consumer Satisfaction," May 23, 2002, <http://www.sbca.com/press/May23-02.htm>.

⁷ See *Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range*, Memorandum Opinion and Order and Second Report and Order, ET Docket No. 98-206, FCC 02-166 (May 23, 2002) ("MVDDS Order").

⁸ *Id.* at ¶3.

⁹ *Id.* at ¶84, note 210.

¹⁰ See The MITRE Corporation's *Analysis of Potential MVDDS Interference to DBS in the 12.2-12.7 GHz Band* ("MITRE Report"), April 2001, at xvi.

interference to DBS operations exists as an elemental aspect of MVDDS design.¹¹ We incorporate those comments by reference in this proceeding.

This action by the Commission is a departure from its consistently-held position that band sharing between BSS¹² and point-to-multipoint terrestrial services is not feasible. In allocating the 12.2-12.7 GHz band and adopting interim service rules for DBS, the Commission gave DBS operations band priority in the 12 GHz band over then-incumbent terrestrial fixed service (“FS”) licensees, concluding that such action was necessary “[t]o ensure that interference from terrestrial fixed service (FS) operations now using . . . [the 12 GHz] band would not prevent reception of DBS signals.”¹³ Such action was similarly deemed necessary to comply with the 1979 World Radiocommunication Conference’s (“WRC-79”) mandate to prevent such terrestrial operations from interfering with DBS reception,¹⁴ and followed the Commission’s earlier finding that “[g]enerally, the broadcasting-satellite service and the fixed service at 12 GHz cannot coexist within . . . the same or adjacent frequencies”¹⁵

¹¹ See FCC Public Notice, *Comments Requested on the MITRE Corporation Report on Technical Analysis of Potential Harmful Interference to DBS from Proposed Terrestrial Services in the 12.2-12.7 GHz Band* (ET Docket 98-206), DA 01-933 (April 23, 2001) SBCA, DIRECTV, EchoStar Communications Corp. comments (filed May 15, 2001) and reply comments (filed May 23, 2001).

¹² *MVDDS Order* at ¶3, note 5. (“The BSS is also referred to as DBS.”)

¹³ *Inquiry into the Development of Regulatory Policy in Regard to Direct Broadcast Satellites for the Period Following the 1983 Regional Administrative Radio Conference, Report and Order*, 90 F.C.C. 2d 676, 692 (1982) (“*DBS Order*”) (*emphasis added*).

¹⁴ See *id.* at 697-705. As the *DBS Order* notes, WRC-79 restricted terrestrial services in the 12 GHz band, stating that “existing and future terrestrial radiocommunication services shall not cause harmful interference to the space services operating in accordance with the broadcasting-satellite Plan [*i.e.*, the *ITU Region 2 Plan for the Broadcast Satellite Service* adopted at RARC-83].” *Id.* ¶ 704 (*quoting* from International FNM 3783D).

¹⁵ *Inquiry into the Development of Regulatory Policy in Regard to Direct Broadcast Satellites for the Period Following the 1983 Regional Administrative Radio Conference*, Notice of Proposed Policy Statement and Rulemaking, 86 F.C.C. 2d 719, 730 n.22 (1981) (“*DBS NPRM*”).

Accordingly, incumbent FS operators that caused interference to DBS operations were required to be relocated to other spectrum.¹⁶ Significantly, these conclusions were reached with respect to point-to-point microwave systems, which present a much less massive intrusion into the DBS spectrum than the point-to-multipoint characteristics of MVDDS.

The Commission first addressed the issue of band sharing between satellite services and point-to-multipoint terrestrial services in connection with the establishment of Local Multipoint Distribution Service (“LMDS”), which is functionally identical to MVDDS. Based on the record evidence in that proceeding, the Commission concluded that “co-frequency sharing between either GSO/FSS or NGSO/FSS ubiquitously deployed subscriber terminals and LMDS with its ubiquitously deployed subscriber terminals is not feasible at this time.”¹⁷

In 1997, the Commission again considered band sharing between FSS and a terrestrial point-to-multipoint service in this proceeding involving Digital Electronic Message Service (“DEMS”) systems in the 18.82-18.92 GHz band. And again the Commission concluded that the point-to-multipoint characteristic of both services would preclude spectrum sharing and decided to move DEMS to a different spectrum band.¹⁸

¹⁶ See *DBS Order* at 691-692, 700. See also *DBS NPRM* at 732; FCC Public Notice, *Initiation of Direct Broadcast Satellite -- Effect on 12 GHz Terrestrial Point-to-Point Licensees in the Private Operational Fixed Service*, 10 FCC Rcd 1211(1994).

¹⁷ *Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission’s Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for local Multipoint Distribution Service and For Fixed Satellite Services*, First Report and Order and Fourth Notice of Proposed Rulemaking, 11 F.C.C. Rcd 19005, 19015-19016 (1996). See also *Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission’s Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to establish Rules and Policies for local Multipoint Distribution Service and For Fixed Satellite Services*, Third Notice of Proposed Rulemaking and Supplemental Tentative Decision, 11 FCC Rcd 53, 70 (1995).

¹⁸ *Amendment of the Commission’s Rules to Relocate the Digital Electronic Message Service From the 18 GHz Band to the 24 GHz Band and to Allocate the 24 GHz Band for Fixed Service*, 12 FCC Rcd 3471 (1997). See also *Amendment of the Commission’s Rules Regarding*

Most recently, in the 1999 *36-51 GHz Order*,¹⁹ the Commission established a band segmentation plan for non-government operations in the 36.0-51.4 GHz frequency band, but “[d]ue to the difficulty of sharing between ubiquitous terrestrial wireless systems and satellite systems, the 36-51 GHz Order provided separate designations within the band for non-government wireless services and for non-government fixed-satellite services”²⁰

With the notable exception of the MVDDS proceeding, the Commission has consistently and repeatedly found – including as recently as 1999 – that band sharing between terrestrial point-to-multipoint and satellite services is not workable. No evidence presented to the Commission in that proceeding warrants a departure from this policy. Commission spectrum management policy must shield DBS consumers from harmful interference from MVDDS operations in the 12.2-12.7 GHz spectrum band.

CONCLUSION

In response to the SPTF Public Notice of June 6, 2002 that asked if the Commission should redefine “harmful interference,” SBCA urges the Commission to consider that satellite-delivered services have unique technical characteristics. Specifically, the signal received by consumers of satellite-delivered services has traveled thousands of miles, which makes it more susceptible to interference from other spectrum users.

the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, Report and Order and Second Notice of Proposed Rulemaking, 12 FCC Rcd 18600 (1997) (concluding that the types of fixed and satellite services likely to be offered in the 39 GHz band would not be able to share spectrum).

¹⁹ *Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz, and 48.2-50.2 GHz Frequency Bands*, Report and Order, 13 FCC Rcd 24649 (1998) (“*36-51 GHz Order*”).

²⁰ *Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz, and 48.2-50.2 GHz Frequency Bands*, Order On Reconsideration, 15 FCC Rcd 1766, 1766-67 (1999).

Only after undertaking a proceeding such as this one should the Commission break from precedent that governs current spectrum management policy. Prior to last month, the Commission had never found spectrum sharing between DBS and point-to-multipoint terrestrial services to be feasible. The decision to reallocate the DBS band for use by MVDDS is an unprecedented effort to shoehorn an additional ubiquitous consumer service into the frequency band of a primary user, which ultimately will harm the competition in the multichannel video marketplace that the FCC has worked for over a decade to foster.

CERTIFICATE OF SERVICE

I hereby certify that on this 8th day of July, 2002, I caused a copy of the foregoing

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